

# The Citrus Industry

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Representative of every interest  
Representing no special interest

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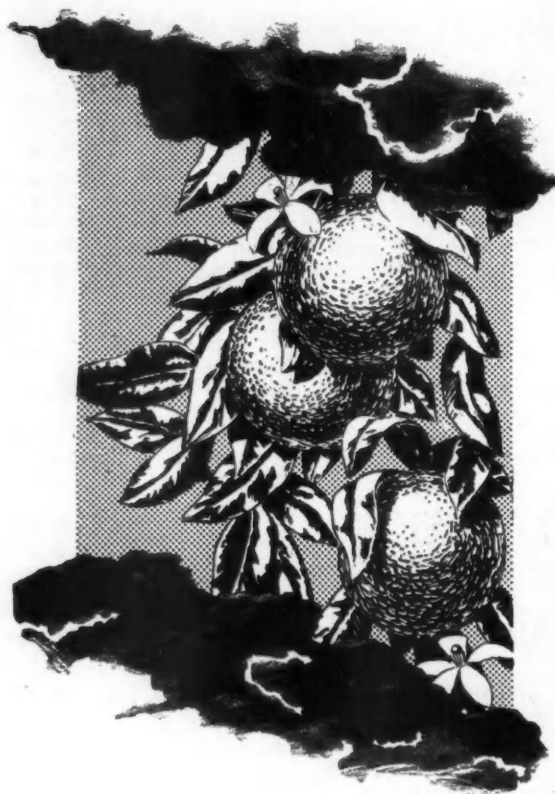
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## Production And Price Trends In Florida Citrus . . .

By Jefferson Thomas

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# The **BREAK** IN THE CLOUDS *Is Here!*



COMMODITY prices are rising. Jobbers and dealers are placing orders for new and better stocks. Employment figures show encouraging gains. Retail sales are swinging upward. These are sure signs that the break in the clouds is here ... that the present outlook for growers is better than it was last year, providing, of course, they supply the market with the quality fruit consumers will demand.

With consumers willing to pay higher prices, naturally, they will want the best quality fruit money can buy ... the best in shape, texture, color and size. To produce such fruit experienced growers know that their trees require the proper amount and character of plant food. They know that when their trees are properly fed they will be healthy, vigorous, well branched and well foliated ... they will produce maximum crops of high-quality fruit ... the only kind that will bring satisfactory returns to them and at the same time increase the demand for Florida fruit.

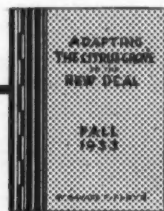
Thoroughly tested fertilizing programs are being carried out by Florida's most successful growers today in every part of the State. Some of them have set aside haphazard methods that were tested in the name of economy during the past few years. They are convinced today that makeshift practices in the long run always fail. They are turning back to established methods. For the important fall application they are using Ideal Fertilizers. They know they can depend on Ideal Fertilizers to supply new richness for the coming crop; to strengthen the trees during the winter and to give their groves the added vigor that means a better start next year. Be guided by the record that stands behind Ideal Fertilizers ... a record of leadership ... a record for growing quality crops in Florida for 40 years.

Our field service includes a staff of efficient representatives. We will be glad to have them call on you and help you with your fertilizer problems.

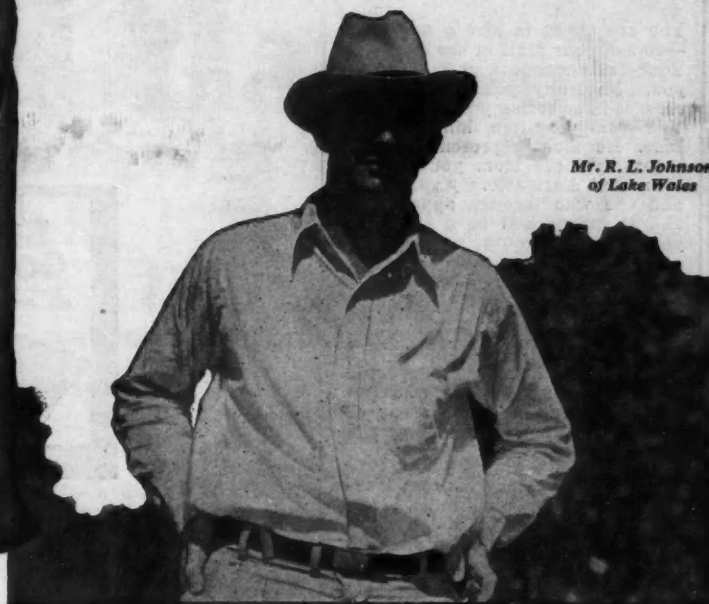
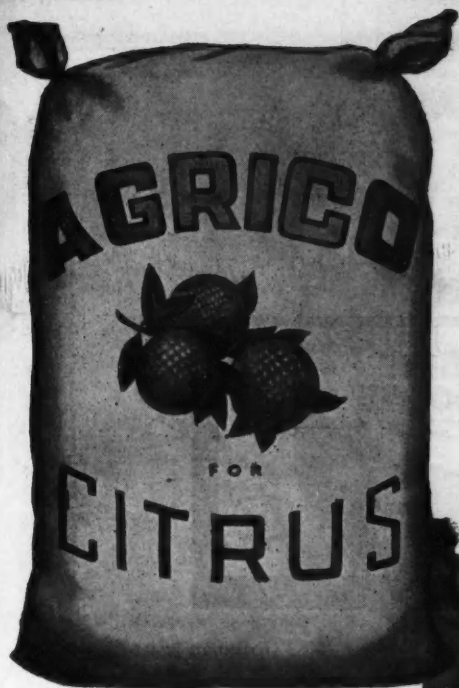
**Wilson & Toomer Fertilizer Company**  
JACKSONVILLE, FLORIDA

## IDEAL *Fertilizers*

In Ideal Fertilizers you can be assured of a liberal use of Genuine Peruvian Bird Guano. When you want Bird Guano demand Genuine Peruvian.... Genuine Peruvian Bird Guano.



Bayard F. Floyd, Florida's leading citrus authority, has summarized in his new booklet, "Adapting the Citrus Grove to the New Deal," the essential facts about fall fertilizing. Send for free booklet today.



Mr. R. L. Johnson  
of Lake Wales

## *".. now I have one of the best groves in the Ridge Section"*

Most citrus men in the Ridge Section know R. L. Johnson of Lake Wales. He is one of the ablest and most popular growers in Polk County.

Two years ago he bought a 20-acre, seven-year old grove that was in a bad, run-down condition. Today this same grove is considered one of the best in this Section and has a splendid crop of fruit that is bound to bring top prices.

Mr. Johnson worked hard in bringing this poorly conditioned grove around. "After several applications of the old standard type fertilizers," he writes, "I was not satisfied with the progress that the grove was making. It seemed to me that the trees were missing something, so I decided to try your special Agrico Fertilizer which I'd heard so much about, and I want you to know that I've never seen trees respond better to any fertilizer. The Agrico certainly supplied what the trees needed."

"This summer the growth put the

trees in fine shape for next year's crop and at the same time developed a large crop of fine-textured, thin-skinned, heavy fruit of good sizes. I've been shown by my own experience that the extra plant-foods in Agrico certainly mean extra profits. In fact, I am so well pleased with Agrico, that I have already laid out a program to fertilize with Agrico exclusively for the coming year."

Mr. Johnson's experience should mean a lot to the many growers whose groves are under-fertilized or dropping back into poor condition. If your grove is slipping why not see one of our service men. He certainly can help you. And why not try Agrico and see the difference it can make. Remember, Agrico contains extra plant foods that mean extra crop-producing power.

THE AMERICAN AGRICULTURAL  
CHEMICAL COMPANY  
PIERCE, FLA.



Makers of  
BRADLEY'S, BOWKER'S and AGRICO Fertilizers

Member of Florida Agricultural Research Institute



# AGRICO

*the fertilizer with the EXTRA plant foods*





## Choose Your Salesman—

You are about to hire a salesman—to sell your fruit in the markets. Your fruit means a great deal to you. Naturally you want to be careful in selecting your salesman. You cannot watch him all the time. He must represent you at great distances from your grove. You want a trustworthy salesman, and one who through appearance and otherwise will be a credit to you.

Things being equal you'll want a salesman who is known to those he must call upon. The more thoroughly acquainted and favorably known he is the better the job of selling he may be expected to do. You'll need one who can get the attention and the ear of the important people among the trade he must visit.

Since he is to pay his own traveling expenses you'll want a salesman who can be depended upon to get out and cover a lot of territory. That will increase materially the opportunities for satisfactory sales. You cannot afford to trust to luck in a small number of markets.

And, as he is to collect, you want a salesman who not only will do his job honestly and well, but who will send to you the money that is yours immediately and without quibble. Further you'll want an accounting with full details, everything right there in black and white.

If you were hiring one man to do your selling, those are the tests you would apply. Why not apply them in selecting your marketing agency? It will mean your selection of American Fruit Growers Inc. to sell your fruit in the markets. Only American Fruit Growers Inc., prepared to represent you in more than 200 terminal markets here and abroad, can measure up fully and satisfactorily to every one of those stipulated requirements.



To consumers, a symbol of quality and satisfaction . . . To growers a symbol of unvarying superior service.

# American Fruit Growers Inc.

Florida Division

Orlando, Florida





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## Production And Price Trends In Florida Citrus

By JEFFERSON THOMAS

Background for intensive study of important phases in the Florida citrus industry is afforded by the latest edition of the fruit and vegetable report that the State Marketing Bureau issues annually. Trends of vast significance in respect to production and prices are disclosed when the statistics for the 1932-33 season receive comparison with previous shipping periods.

Output aggregating 28,409,630 boxes estimated for last year, inclusive of fruit moved in commercial shipments, utilized in canneries and consumed within the state, exceeded the anticipations of most crop forecasts. While materially larger than in the 1931-32 season, when equivalent calculations showed a total of 24,443,523 boxes, the volume fell below the record production of 36,588,231 boxes in 1930-31, 1,583,260 of which were abandoned in the groves.

Gross value to the state of the grapefruit, oranges and tangerines taken from the trees in 1932-33 showed an actual loss from the preceding season, despite the enlarged output. Figured on the basis of delivery to the state line on all shipments for outside areas, the valuation stood at \$36,877,896, against \$47,499,006 for the fruit marketed in 1931-32 and \$55,569,140 on the 1930-31 crop. Adverse effect on

economic conditions in Florida could not otherwise than follow these drops in citrus revenue.

Growers' net returns, consisting of what is left to them after provision has been made for production, packing, marketing and freight costs, went down to an all-time low of two cents a box last season. On the 28,409,630 boxes, the sum of these profits for the entire state was only \$562,466! The year before an average of 46 cents a box net was obtained, giving a total of \$11,279,634. For the big crop of 1930-31, the "on the tree" figures was 25.1 cents a box, yielding an aggregate of \$8,794,052 in net to producers of fruit.

### Costs to the Growers

Findings as to production costs, for 1932-33, fixed these as averaging 38 cents a box on grapefruit, 48 cents on oranges and 56 cents on tangerines, with a weighted average on all of 45 cents. Included were the expenses customary in procuring fertilizer, labor, spraying materials and so on but no allowance was made for depreciation, interest or taxes. Picking, handling, packing and selling charges were figured at 85 cents a box for grapefruit, 90 cents for oranges and \$1.16 for tangerines, weighted average 90 cents. Altogether, the items of required outlay

stood \$1.23 a box in the case of grapefruit, \$1.38 on oranges and \$1.72 for tangerines, weighted average, \$1.35.

Reductions in the expenditures incident to growing and preparing fruit for market are reflected in nearly all the foregoing figures, when checked against the corresponding items in the 1931-32 report. For that season the producing costs were found to have been 40 cents a box on grapefruit, 60 on oranges and 75 on tangerines, weighted average 53 cents. Expenses incurred after maturity of the crop were given as 85 cents a box for grapefruit, 95 cents for oranges and \$1.25 for tangerines, weighted average, 92 cents. Outlay for all the purposes aggregated \$1.25 a box, grapefruit; \$1.55, oranges; \$2.00, tangerines; weighted average, \$1.45. Volume was smaller than in 1932-33, it should be remembered.

In 1930-31, with the tremendous output, producing costs ran somewhat lower than either last season or the year before. They were given as 36 cents a box on grapefruit, 48 cents on oranges and 54 cents on tangerines, weighted average 43 cents. Expenses incident to taking the crop from the trees, putting it through the packing houses and placing the product in the markets were higher in

(Continued on page 24)

# Reducing Decay In Florida Citrus Fruits By The Use Of Borax

By J. R. Winston, Senior Horticulturist, Division of Fruit and Vegetable Crops and Diseases United States Department of Agriculture, Bureau of Plant Industry.

The recent hurricane caused a considerable windfall of fruit, grapefruit in particular, and it probably scarred, bruised or otherwise damaged a portion of both the orange and grapefruit crop not thrown off during the blow. It is probable that some of this damaged fruit will drop before harvest time; it is equally probable—based on experience after former storms, that after the fruit has been harvested, thorn scratches or limb rubs, while apparently healed in many fruits will cause decay to set in at these points of injury. Following past hurricanes, one of the stem-end rot organisms developed quite consistently in these storm-caused scars. With such a condition confronting shippers, doubtless many of them will turn to a more general use of antiseptics after the fruit has been harvested, in an attempt to prevent the losses from decay that are almost certain to develop in this injured fruit.

For the purpose of retarding decay, antiseptics of one sort or another have long been used in the washing process preparatory to packing Florida citrus fruits. Formerly such materials as permanganate of potash and bluestone were rather generally used, but their use did not, as a rule, give very striking results. At the present time tri-sodium phosphate, sodium carbonate, soda ash, borax and boric acid are used both for cleaning and fungicidal effects. Of these, none excels borax in fungicidal properties, although boric acid is almost as effective, but far more expensive. However, many shippers have failed to get consistently good results from its use, undoubtedly because they have not fully understood how it should be employed to produce maximum results.

The efficacy of such liquid antiseptic treatments is, as a rule, greatly influenced by the strength of the solution used, and by the interval between the planting of the spores and the application of the fungicide.

Each type of fruit decay presents

its own peculiar problem. Fortunately, with the Florida citrus crop, only two types of decay are usually of commercial importance, the blue and green molds and the stem-end rots. Unless the solution is heated, the fungicides are of little value in controlling blue or green mold—unless the application can be made within a few hours after the spores come in contact with the broken tissue, such as clipper cuts, box bruises, etc., through which infection occurs. The mold spores germinate quickly at favorable temperatures and soon penetrate too deeply to be reached by antiseptic solutions. But in the case of stem-end rot a very different situation exists and there is a very different problem. While the exact time and mode of infection by these fungi are not definitely known, it probably occurs during the growing period, while the fruit is on the tree, possibly weeks before harvest time. It is possible that after gaining a foothold in the fruit, the stem-end rot organisms remain in a somewhat dormant state, since they have generally been observed to be incapable of advancing rapidly into healthy fruit while it is still on the tree. Ordinarily, at the usual harvest time, there are no visible signs of infection, but as the fruit approaches dead ripeness and shows the effect of age, it becomes more susceptible to attack by these organisms. So, during the early part of the shipping season, fruits from a given tree are less subject to rapid development of stem-end rot than is the case later, and much less than if the fruit is allowed to become dead ripe before harvest.

These stem-end rot fungi enter the fruit through the stem or stem parts. The advance is slow or rapid, depending upon the maturity or other conditions of the fruit and the environment in which it is held after removal from the tree. Stem-end rot proceeds quite actively as soon as the fruit is harvested, especially if it is held in a warm temperature. Improper coloring room conditions afford an environment very conducive to rapid development of these fungi. To be effective against this type of rot fungicides must be applied before the fungi have penetrated too deeply into the tissues to be reached.

The interval between harvesting and applying the fungicide is of very vital importance. It is probable that the failure of most shippers to appreciate this cardinal point explains why the borax bath has so often failed to check decay satisfactorily. This was the conclusion reached in a preliminary survey two years ago, preparatory to attempting to develop a more effective procedure in the use of borax to control decay in Florida citrus fruits.

In the study which has been made subsequently, many experiments were conducted using borax solutions as the fungicidal ingredient. While the results to date have been generally satisfactory, certain points remain to be cleared up, particularly the method of application under various weather conditions with attendant influence upon humidity, fruit temperatures, etc. The more important results of the last two seasons' work may be summarized as follows:

Best all around results were obtained by treating the fruit with a borax solution immediately after picking and upon arrival at the packing house. When the application was delayed until after the fruit had been colored—as has been the customary practice—the results were not nearly so satisfactory. At times this delayed application seemed to be practically useless, having little or no effect in controlling decay.

It was found that when the borax deposit was left on the fruit several hours, the control of stem-end rot usually was considerably greater than when the borax solution was removed immediately after being applied. Still better control was obtained when none of the borax was removed. It was found that the presence of this borax deposit on the fruit did not retard the rate or quality of the coloring, or accelerate wilting.

The maturity of the fruit at the time of treatment appeared to have some influence on the effectiveness of the borax bath in controlling stem-end rot. With fruit of the grade, quality and condition usually shipped to market, there was on the average from 3 to 5 times more decay in the untreated fruit than in that which received the borax treatment on the



day it was picked. However, it was not markedly effective in checking decay in dead-ripe oranges ready to fall from the tree.

A momentary dip in a borax bath was found to be almost as effective as dipping for several minutes. Provided that the temperature of the fruit was well above the saturation temperature of the bath, temperatures of the borax solution between 80° and 100°F. usually appeared to be of little consequence in the effectiveness of the treatment, but when the temperature of the solution was raised to 110° or more the effectiveness of the borax treatment was increased.

In these experiments a 5 percent borax solution was not strong enough for best results and an 8 percent solution gave better control.

The use of the borax bath was sometimes followed by the development of a discoloration around the stem after about 15 to 20 days. Ordinarily this was of no commercial consequence. The fruit from different groves varied in its susceptibility to this blemish. When boric acid was used alone, or in conjunction with borax, this injury was greatly increased.

During cool and cold weather it is difficult to keep the proper concentration of borax in the treating solution due to its relatively low solubility. The maximum possible concentration of borax at 50°F. is about 3½ percent, at 70° it is about 5 percent, at 80° about 7 percent, and at 90° about 9 percent. In order to be certain that all of the borax is in solution, the temperature of the bath should be held well above the saturation temperature of the desired concentration. This requires that arrangements be made for heating the borax bath in order that the concentration will not drop below the point of safety, due to falling temperatures. Experience has shown that a temperature of 100-110° is a safe working range for the borax solution. It has also shown that for best results, the temperature of the rind of the fruit should not be lower than the saturation temperature of the concentration used, otherwise an adequate amount of borax is unlikely to adhere to the fruit. The rind temperature therefore probably should be well above the saturation temperature of the bath.

Tests with fruit with rind temperatures below the saturation temperature of the bath into which they were momentarily dipped showed that decay was not controlled. This was probably due to the temperature of

the fruit chilling the film of borax solution surrounding it, and thereby causing the borax to precipitate out of solution. That is, if a fruit with a temperature of 50°F. was momentarily dipped into an 8 percent borax solution the concentration of the borax in solution in the film surrounding the fruit would drop to about 3½ percent.

In chilly weather some scheme for heating the fruit prior to or during the borax treatment is necessary. This is an engineering problem dealing with heat transfer that should be referred to a competent engineer for specific advice. It is possible, however, that the fruit could be pre-heated in a coloring room for a few hours in much the same manner followed when fruit was being sterilized during the Mediterranean Fruit Fly Eradication Campaign. Or, possibly, soaking tanks might be utilized if only a small amount of fruit is to be treated. The main consideration should be to bring the rind temperature up to a point well above the saturation temperature of the borax concentration used, as quickly and as cheaply as possible.

Three methods of applying borax were used in commercial operations during the season 1932-33: one in which both the fruit and its container were immersed in a small borax tank, another in which the fruit was dumped from the field box, passed into a vat containing borax, thence on a drip conveyor to dry boxes, and still another in which the fruit was passed through the washer and borax tank as in the usual practice. At this point, however, instead of being passed through the drier the fruit was then shunted into field boxes.

There are certain advantages and disadvantages in each of these methods, depending mainly upon the condition of the fruit, whether it is to be colored, the equipment for coloring, weather conditions, etc. The first method is less likely to bruise the fruit, which is a matter of especial importance early in the season when oil cells in the rind are easily ruptured, resulting in a discolored area of the rind. The last method may serve in an emergency and possibly if both the soaking tank and the borax tank are heated it may serve for warming and treating the fruit in the same operation when the weather is cool and the fruit movement is light.

In coloring rooms having adequate air circulation, wet boxes may not cause a difficult problem because it is possible to remove the excessive moisture within a reasonable time, provided an abundance of fresh dry

air can be introduced during this drying period. However, in coloring rooms having only average or less than an average amount of air circulation, the drying problem becomes serious because of the excessive amount of moisture that must be removed. Where wet fruit is handled in dry boxes, the drying problem is not a difficult one even where there is only a moderate air circulation in the rooms.

In the following of borax-treated fruit the rooms should not be flooded with live steam because this is likely to wash off some of the borax from the fruit, especially in the lower boxes, and if the fruit is considerably cooler than the air in the top of the coloring room, which would cause a condensation of the steam. In such cases, it would be wise to rely mainly on radiator heat until the fruit and boxes are dry.

If the treated fruit does not need coloring, the wet boxes do not usually present much of a problem since they are usually stacked in an open shed where they can dry readily. If this practice is not followed the fruit, even though still wet with borax, can be run through the usual preparation and packing procedures without impairing the effectiveness of the borax treatment or injuring the fruit.

With due regard to the temperature of the fruit to be treated, and to the solubility of borax at various temperatures, this treatment can be utilized effectively in reducing both blue mold and stem-end rot in Florida citrus fruits, provided the application is made as soon as possible after the fruit is packed. It should be emphasized, however, that a momentary dip of cold fruit into a warm borax bath is almost certain to give disappointing results because an insufficient amount of borax will remain on the fruit, but if the fruit is warm when treated, decay in good marketable fruit should be greatly reduced.

Refrigeration will retard decay while the fruit is held at low temperatures but under commercial conditions this is usually limited to the transit period only. The borax treatment retards decay, not only while the fruit is being prepared for market and while in transit, but during the period normally required for distribution, retail sale and ultimate consumption, as well.

I think there is nothing that we Americans need more today than common understanding and unity of purpose.—Henry Morganthau, Jr.



# Some Problems Of Advertising Florida Citrus Fruit

By FRANK KAY ANDERSON

Recently there has been considerable general talk upon the subject of advertising Florida citrus fruits, and rightly so. Of late Florida has been just about at a standstill in both advertising to increase general consumption of our citrus fruits and in effort to widen distribution of the Florida crop. That, however, is not necessarily cited in criticism of Florida. Conditions of ever sort have been abnormal. Not only is it doubtful if expenditures in such directions would have shown a profit, but it seems as if Florida stands a chance to reap some actual benefit from the pause in such activities, provided we in Florida utilize this time to make a careful analysis of our situation and to take stock, so to speak.

What do we actually seek to accomplish through advertising of our fruit? Simply to make a noise, and to place some brightly colored advertisements in a few magazines to be admired mostly by ourselves is, of course, something we can do. We have done something similar upon several occasions in the past; but is that what we want to do in the future?

What part of our aims and projects, if we have aims and projects, actually are feasible of accomplishment?

Who says so?

What actually does he, or they, know about it of his, or their own knowledge? Or are the statements of some advertising promoters presenting some cut and dried plan of their own devising, and largely directed toward their own profit, simply being parroted by some of our own Florida folks—whose sincerity may not be doubted but whose personal equipment and experience is hardly such to qualify them to pass upon the more technical phases of such an undertaking?

John Wannamaker, who built his great business solidly upon the then little understood foundation of advertising, once said that the most effective advertising plans and copy were bound to result in at least twenty per cent waste. That no advertising possibly could be more than eighty per cent effective; but that

too much of it was only ten or twenty per cent effective and ninety or eighty per cent waste. Such being the case, and no one with any considerable actual experience in advertising doubts it, it behooves any advertiser to use the greatest care to see that his advertising is as effective as it is possible to make it, and that it involves as little waste of money and effort as possible.

How are Florida citrus growers and shippers to do that?

Putting aside the temptation to indulge in lengthy academical discussions of advertising, it may be well to go right to the point. It is necessary to admit that, though we have among our Florida grove owners a few of the foremost advertising experts of the country, our Florida citrus growers and shippers as a whole are sadly lacking in knowledge of such problems. Granting then our combined ignorance, intelligent analysis of our situation indicates the wisdom of following in the footsteps of some who have trod successfully in the pathway we seek, rather than to undertake to blaze an expensive and extremely doubtful path of our own.

Assuming the correctness of this, whom shall Florida elect to follow?

Our problem concerns the foodstuffs for human consumption produced in Florida's groves. We may upon occasion profit through learning something of the problems and the advertising experiences of those who have bonds, machine tools, automobiles or other things to market—for all selling problems to some extent are related—but time being short it seems logical to choose to study closely the lines followed by those others whose problems are closest to our own in that they, too, have foodstuffs to sell.

At first thought there would seem to be a considerable number of successful advertisers of foodstuffs upon a national scale; but stop and investigate. As a matter of fact there is only a handful, or at best a good double-handful.

Campbell's Soups—we'll put them first because the business has been built wholly upon advertising within

a generation. Who, forty years ago, would have dreamed of selling a ready prepared soup upon a national scale?

Heinz 57, which in reality is something like one hundred.

The two great Minneapolis flour milling concerns.

A very few coffee roasters.

Three Chicago meat packers, who incidentally pack a lot of other things.

The California Packing Corporation, responsible for Del Monte canned fruits and vegetables.

Sun Maid Raisin Growers, with their Sun Maid raisins.

California Fruit Growers Exchange, with its Sunkist oranges.

There, that is about the list. We might include a few others, but we'd have to search around a good bit to find evidence upon which to base their inclusion. True, we might include also the United Prune Growers, but this writer, whether rightly or not, classes them as striving and thriving young advertisers, but hardly arrived as yet. Take a file of your favorite newspapers and all you can collect of those women's magazines, and the chances are you will be astonished to find how small a proportion of their advertising is of nationally known foodstuffs:

Oh, but—we left out one. That was on purpose to emphasize it, or them. Under the General Foods banner now, Grape-Nuts, Postum, Post-Toasties, perhaps next to Campbell's soups the outstanding advertising successes in the foodstuffs line. Remember, Charles W. Post, the man who put the battle into Battle Creek, and whose There's A Reason, twenty and twenty-five years ago actually blazed the way for national foodstuffs advertising. Most of those we now rate as successful foodstuffs advertisers started out a good many years ago timidly putting their feet down where Charles W. Post had shortly before trod, and thus a national scale via the route of advertising.

Of course, we are going to study only the successful foodstuffs advertisers, because in addition to making some fuss and having some fun out

of our own advertising effort we really would like to make Florida's effort a success, and not a failure.

Now what have we in common with these successful advertisers singled out here, and what are the outstanding differences in our problems.

There are so many things in common as to be tedious in the enumeration, let's look at the differences and point out just these:

The advertisers in question are successes. They have arrived. We of Florida, on the other hand, are just starting; and actually are starting from behind the line, like the sprinter who is penalized a yard for each false start ahead of the gun. We have made a lot of false starts in advertising, we Florida folks.

And here is the biggest difference of all—every one of these other advertisers has national distribution, meaning that their products are on sale in every one of the forty-eight states. We, of Florida, not only do not sell our citrus fruits in anything like all the other states, but, due to our freight rate structure and other limitations are not prepared to do so at any time within the reasonably near future.

If we look for something analogous, we find that we are about in the position of these advertisers when they began to step out in the path of Charles W. Post, and right where the immortal Charlie Post was when he earlier started out to run a few dollars and a recipe in to the twenty-five millions of dollars he left at the time of his death a few years later.

They are now national advertisers. We of Florida must essentially be sectional advertisers, rather than national, until such time as we can build up a distribution of our fruit that will justify a national advertising effort. In that connection it is well to bear in mind it is an established truism in the field of advertising and merchandising that to advertise a product at such places where it is not on sale is simply to boost the sales and the prestige of such competitive products as may be available there.

Now it so happens that each and every one of these enumerated advertisers in the earlier stages of their business were sectional rather than national advertisers. They crawled before they walked, and they walked before they tried to run. What they did, and how they did it, in the earlier stages may not be lost sight of now. Fortunately, examples of their ear-

lier effort have been preserved, and are available for study. We of Florida may have access to them if we desire. As a matter of fact we have a half-dozen or more Florida citrus growers who are thoroughly familiar with them, having been vitally concerned and actively engaged in some of those earlier advertising operations. We have only to ask those growers, if we tackle this new advertising job with clear minds, and we can obtain both information and cooperation invaluable to our advertising undertaking.

That seems to be the first thing we of Florida attempting to act collectively must learn, that is, to plan our advertising. To do as all successful advertisers, of foodstuffs or other things, do, to plot and plan what we want to do, with careful consideration for all that has gone before, with consideration for what line of effort has proven successful, and what line of effort invariably has failed, and with very definite consideration for some given objective, such objective having been very carefully examined and proven to be possible of attainment. That is the invariable procedure of all successful advertisers. We cannot expect to become successful advertisers by putting on a hurrah-boys campaign, raising a certain sum of money, and then turning it over to some self-appointed advertising organization with a hasty O. K. upon some plan which has been worked up in some distant city with little knowledge of, and very little concern for, Florida's real fruit-merchandising problems.

Beginning very modestly a good many years back the Florida Citrus Exchange gradually worked up to an annual advertising expenditure of something more than \$400,000. This maximum figure was for the season of 1921-22, if we remember correctly. A certain number of mistakes were made, of course, but profiting through those errors the Exchange under the extremely capable leadership of the late Dr. J. H. Ross, became a fair sized advertiser of its Sealdsweet trademarked fruit.

Now Dr. Ross in his earlier life had been a most successful physician. Of course, physicians are non-advertisers; but it seemed that Dr. Ross all his life had been studying how advertising operated, perhaps because he was in his professional life debarred from using it. At any rate he was extremely careful of the accuracy of every statement made, which is an essential of truly successful advertising, and feeling that he, himself, knew nothing about it

he felt free to consult every available person whose opinion was likely to be of real value. He knew enough not to approve an advertisement simply because he, himself liked it, and enough not to disapprove an advertisement because he, himself, did not like it. He realized it is the reaction of the mass of the public which counts, which is a first requisite of any executive head who would make his concern a successful advertisers.

The passing of Dr. Ross as head of the Exchange, and a financial explosion which among other things wrecked the advertising agency that had guided the Exchange for a dozen years in its effort, combined to throw into the discard most of the valuable experience which the Exchange had accumulated during that period.

Since then, we have started again, and again; but to date we haven't gotten anywhere. Each start, possibly because it ignores everything which has gone before, entails accumulating its own experience, a wholly feasible but undoubtedly expensive form of proceeding.

The physicians of the United States, and the dieticians taking their cue from the medical men, have done a very great deal to stimulate the sales of citrus fruits, through advising the public of the benefits attendant upon the generous use of citrus fruits in the diet. Credit for this collective action of the medical fraternity is due to none other than the late Dr. Ross. Under his personal direction something like forty thousand dollars a year for three years was expended in advertising to the medical men of this country in the medical publications the true effects of citrus fruit when used in the diet. It is information originally supplied to them as advertising in this manner which today forms the basis for their understanding of citrus fruits and their value. It was a careful job, wholly ethical, every statement subject to verification of the highest authority, and it put citrus fruits over with a bang. Dr. Royal S. Copeland of New York, and Dr. William S. Evans of Chicago, who as national figures in the medical world came out strongly in print in their advocacy of citrus fruits in the diet, particularly during the big flu epidemic, got their information from Dr. J. H. Ross, who as a Florida citrus grower wasn't above telling a few things he knew to be the absolute truth concerning the value of the fruits he grew.

Yet only the other day some gen-

(Continued on page 20)





## The Citrus Industry

with which is merged The Citrus Leaf

Exclusive publication of the Citrus Growers and Shippers

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### CITRUS CODE BADLY NEEDED

As this is written, the proposed citrus marketing code has not been approved by the federal authorities, but hope is held out that early consideration may be expected and that announcement of approval or modifications will be forthcoming. That such announcement may not be delayed is the earnest hope of those engaged in the industry and its allied lines.

The belief expressed in some quarters that, owing to the shortage of the grapefruit crop caused by the destruction of the greater part of the Texas crop and much of the Florida crop by tropical storms, there would be no need of a grapefruit code or of pro-rating of grapefruit shipments this season, has proven erroneous. In the absence of such a code and with no control of shipments, the price received for grapefruit on the various markets has just about covered the cost of picking, packing and transporting the crop to market, leaving the grower nothing for his investment, labor and cost of production.

California orange growers are faring little if any better. With a reported shortage in the crop of Valencia oranges, the prices received by California growers are leaving nothing whatever in the way of profit, and in most cases, nothing to apply on the cost of production. The picking, packing and carrying charges are just about eating up the price received at destination.

In this situation, it is regrettable that the code is not in operation to control shipments and stimulate prices. Growers and shippers alike are hoping that the approval of the federal authorities may be no longer delayed. However, this delay in consideration of the code is not properly chargeable to government officials or to lack of interest on the part of the depart-

ment of agriculture. Differences of opinion existing between certain sections and certain citrus factors have served to cloud the issue and delay consideration. Most of these differences, however, have now been ironed out and early action may be anticipated.

While the code as finally agreed upon by the various citrus sections may not be perfect, indeed, that would be entirely too much to expect, it forms the basis for operations, which should and doubtless will prove of great benefit to the citrus industry of every producing state, and in the interest of such growers it should be put into operation at the earliest possible moment.

### FLORIDA FRUIT FOR NEEDY

A movement has been set on foot by officials of the Florida Citrus Exchange to induce government officials to include citrus fruits in the list of foods to be supplied to the needy through federal agencies this winter, according to President John S. Taylor, who has recently returned from a trip to Washington.

The plan of the Exchange officials is to have the federal agencies purchase large quantities of low grade fruit of good quality but comprising fruit of off-sizes or fruit otherwise barred from shipment as first quality. The thought of the Exchange officials evidently is that much fruit which would be barred from shipment to regular markets, but which is of perfect eating quality, could thus be disposed of at a low rate to the government yet with some profit to the grower, and at the same time provide a healthful and appealing article of diet to the needy unemployed whom the government plans to aid by providing the necessities of life during the approaching winter season.

Any plan which will provide a market for fruit which otherwise would be unmarketable at a price which provides even a small profit above production cost is a good plan for the grower. The plan suggested has the additional merit that such fruit would not come in competition with high grade fruit sent through regular channels nor would it lessen the demand for marketable fruit since the consumers would not be in position to purchase fruit from regular dealers.

Exchange officials believe that they have excellent prospects of putting the plan into operation.

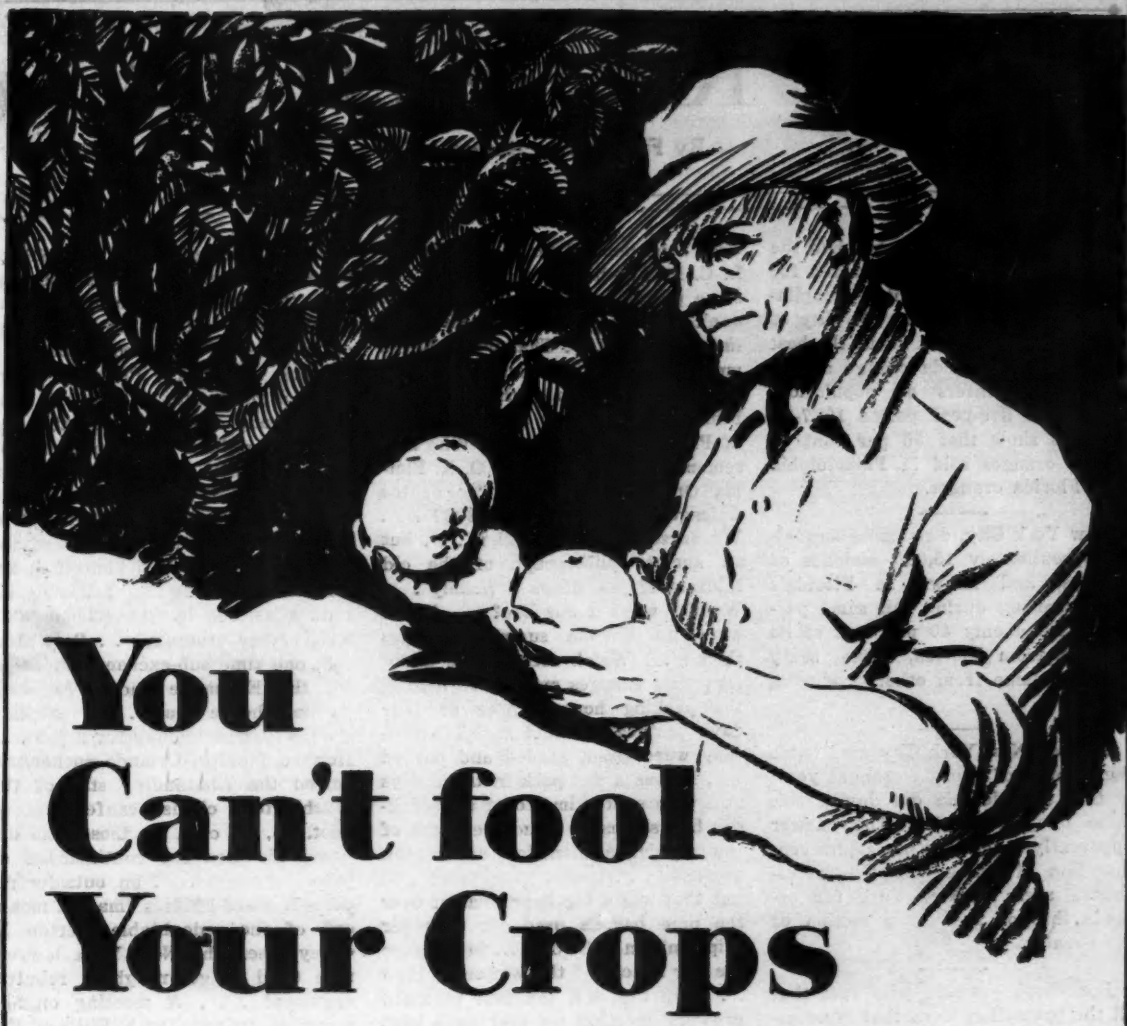
While hard hit by the storm of September 5, the citrus growers of Texas are by no means disheartened. It takes something more than a hurricane to put a Texan on the shelf.

The present grapefruit market, with a short crop and a good demand, demonstrates that what the industry needs, and needs now, is a code with teeth in it.

Every dollar wisely spent for fertilizer or insecticide should be considered as an investment, not as an expense.

The proposed Citrus Code promises a New Deal for citrus growers.





# You Can't fool Your Crops

Try as hard as you like you can't feed your crops cheap fertilizer and make them like it. Trees and plants know the difference between good fertilizer and the "sorry" kind. And unless they get fertilizer that really furnishes them balanced rations they can't be expected to produce profits. That's why we say, "Play safe with Gulf Brands." Gulf Brands of Fertilizer are formulated expressly for Florida soils. And the careful selection and blending of materials insure safe, uniform crop nutrition throughout the year. Start now with Gulf Brands and see what a big difference REAL fertilizer makes.

The Gulf Fertilizer Company, Tampa, Florida

## GULF BRANDS

*of Fertilizer*

"If it's on the tag  
it's in the bag"



# IMPRESSIONS

By Frank Kay Anderson

Philadelphia for years has had the name of being a "cheap" market for Florida citrus fruits, but a compilation shows that in a way the City of Brotherly Love is just about the best friend of the Florida orange among the larger centers of population. During the five-year period 1927-31 statistics show that 55 per cent of all the oranges sold in Philadelphia were Florida oranges.

New York City, consuming annually approximately 15,000 carloads of oranges, and known as Florida's "big" market, during this same period obtained only 40 per cent of its oranges from Florida, while sixty per cent came from other producing areas.

At that, New York City used twice the amount of Florida oranges yearly that Philadelphia did during this same five-year period. The answer apparently is that the per capita consumption of oranges in the metropolitan area of New York far exceeds that of any other section of the country.

For those growers who feel that all the promotion work that is necessary for Florida citrus fruits has been pretty well done, we dig out from these same statistics the fact that during this period of five years only 19 per cent of the oranges used in the Chicago area came from Florida, while in Detroit Florida oranges must border upon being in disrepute in as much as during this same time only 15 per cent of Detroit's oranges came from Florida.

Now, coming to grapefruit, Pittsburgh shows its preference for the Florida-grown article over these five years by drawing 99 per cent of its supplies from Florida. Philadelphia used 95 per cent Florida grapefruit, but New York used only 66 per cent of the Florida product while 34 per cent came from other places.

Just jottings . . . Quite some rain with that September 4-5 storm . . . 12.6 inches in 55 hours . . . by the official rain gauge at Florida Humus

Co.'s experimental farm, according to L. C. Beck, office manager there . . . some places probably got more . . . don't think Zellwood was on the main line of march . . . That would be 18 months average rain supply for San Diego . . . Mention of the fine, fresh Florida orange juice at the Century of Progress exposition . . . Who now remembers, "P. G. Mattox O. K. Florida Orange Cider 5c? ' ' ' at the Chicago World's Fair in 1893? . . . We ourself cannot recall it . . . but an ancient photograph of the old Midway of '93 shows it plainly . . . Wonder what it was like? . . . There were no Florida summer oranges then . . . Which recalls that about that time oranges used to be held in the packing houses three or four days to "season" and shrink before they were sized, graded and packed . . . It was a flat pack in those days . . . with split-palmetto or split-hickory box straps . . . and the name of the consignee stenciled upon each box-head . . . Maybe you'd laugh . . . but that was a big improvement over the pine barrels used for schooner shipments in 1833-34 . . . just before the Big Freeze of the winter of 1935 . . . By the bye, the first recorded growers' meeting we ever have been able to find was in St. Augustine in December, Green Cove Springs, Mandarin, and San Mateo . . . probably to discuss the problem of over-production . . . but that's too far back for even Joshua C. Chase to be certain about it . . . Not long ago someone asked if the Big Freeze of 1835 was really severe . . . Well, the official government thermometer at St. Augustine went to seven above zero . . . according to the writings of Commissioner Williams . . . then administrating the government of East Florida . . . he was a painstakingly accurate man . . . the only question can be of the accuracy of his thermometer . . . Harry Johnson, Haines City citrus grower and wizard with a shotgun, died September 10 in a Rochester, N. Y. hospital following a long illness . . . every summer for the past several years Harry went out on the rounds of the trapshooting events and accumulated endless cups and trophies . . . only 57 at his death . . .

and last summer he had had one of his very successful shooting seasons . . . "Brighteyes" Johnson, with the hearty laugh and the big Blue Goose on his sweater has checked out . . . Meeting with Harry Phipps of Tampa in a restaurant . . . a one time sub-exchange manager for the Exchange, but back at his original job of railroading . . . a number of mutual friends to discuss . . . glad to hear from him that E. D. (Ed) Dow, Tampa, long traffic manager of the Exchange, has located himself in another line of work . . . following his sudden release by the Exchange in its economy program . . . Bert Morrell, one time sub-exchange manager for the Exchange and a foremost packing house man . . . sticking around Tampa looking for a job . . . Howard Phillips, Orlando packer, reported the outstanding star of the Washington citrus conference of Sept. 7 . . . even by those who opposed his plea for continuation of bulk shipments . . . an outsider reports Howard Phillips "made a monkey" of the redoubtable Merton L. Corey when the New York lawyerman tried to get rough in rebuttal argument . . . A meeting on the street in Orlando with William Edwards and his daughter Jean . . . the big shot of Zellwood just back from New York where he underwent a very serious operation . . . looking well and promising a quick pick-up of his old time pep . . . The suggestion of the Consumers Division of the NRA to the effect that the USDA revise its grading scheme for citrus fruit to allow for inner goodness rather than to base it wholly on outward appearance appeals to us . . . but it is not likely to be done . . . There are two reasons why no change will be made . . . one reason is California navels . . . the other reason is California Valencias . . . Floridians today are of two classes . . . those who have been to the Chicago fair . . . and those who are on the relief rolls . . . yet we, ourself, didn't quite make either one . . . Phil C. Peters, who has done much to put the "garden" into Winter Garden says the outburst for organization among  
(Continued on page 14)

# ask for 10% POTASH IN YOUR FERTILIZER



## POTASH HUNGRY

Typical growth and fruit from a tree which received an unbalanced fertilizer containing insufficient potash.

## BALANCED FERTILIZER

Typical growth and fruit from a tree fertilized three times annually with a mixture well-balanced with plenty of potash.

**M**AKE your fall fertilizer dollars do double duty by making sure that your citrus fertilizer contains at least 10% potash, derived from NV Sulphate of Potash, the quality-producing element.

NV Sulphate of Potash hastens the storage of carbohydrates (*sugars, starches, etc.*) and produces fine finish, a high color and heavy juice content for your fruit.

The value of 10% potash fertilizer does not end with your present crop. It awakens your trees rationally to a heavy bloom and set of fruit for next year—and fruit quality begins with the bloom.

Protect your grove investment by keeping it producing high-quality crops year after year. Regardless of conditions, growers who top the market make the best profit. Liberal application of fertilizer containing 10% potash, derived from NV Sulphate of Potash is your best insurance of the quality that pays.

*Remember high-potash fertilizer produces bigger yields of better quality potatoes, celery, cabbage, peppers, beans and other truck crops.*



**N. V. POTASH EXPORT MY., INC.**

Hurt Bldg., Atlanta, Ga.

J. L. Baskin, Representative, Box 1051, Orlando, Fla.

**MAKE SURE YOUR FERTILIZER CONTAINS AT LEAST 10% POTASH**



## IMPRESSIONS

(Continued from page 12)

grove laborers is "a flash in the pan" . . . that the grove laborers have been making more money than the growers . . . If the participants will authorize us, believe we can sell that group picture of citrus men at the September 7, Washington conference for a good price to a prominent tonic manufacturer . . . for use as a "before" picture . . . Miss Mosel Preston, well known Bartow and Auburndale citrus grower, doesn't miss a meeting of the Florida Citrus Growers League . . . Just when we were beginning to think headline writing one of the lost arts here comes a dinger . . . by W. L. (Bill) Story in the Winter Garden Herald . . . apropos the verbal public report of a bank conservator . . . a two-line head across four columns, it reads thus: . . . "O'Neal Spins A Spiel Both Tearful And Cheerful . . . But Man In The Street Has Cold Feet, Is Fearful" . . . That is the sort of talent Bill Story is concealing while making things grow from the soil . . . if only he'd keep practicing at writing no telling what he'd arrive at . . . maybe sometime we'd let him write Impressions . . . Which reminds us that the well known grower who a few years ago wrote that series of Brother Bill letters for the Growers' Own Page says he is about ready for another series . . . this time we hope he'll use his own name and not hide under a nom de type . . . Some early cash sales of citrus crops . . . generally upon a basis to yield much encouragement concerning the season's prospects for the growers . . . C. B. (Blayne) Reeves, Winter Haven grower, carries a "compact", . . . but uses it to carry his money . . . Wm. H. Baggs, Pittsburgh, general manager of the American Fruit Growers Inc. sweating generously in an Orlando restaurant on September 23, and simultaneously worrying about a snowstorm . . . which the day before had struck Yakima and vicinity in the state of Washington . . . from whence come a lot of AFG apples . . . Bert Roper, Winter Garden citrus shipper, hasn't visibly aged a month in the last several years . . . Again we take our hat off to M. M. Lee publisher of The Chief at Winter Haven . . . as the one Florida editor with the best understanding of the citrus situation . . . which, of course, is because he, himself, is a citrus grower of extended experience . . . And Dr. George E. Albright, Weirsdale grower, turns out to be a Presbyterian minister . . . somehow we had always rated him erroneously as a medical man . . . Al-

ready that go-getting bunch at Winter Haven are at work upon the forthcoming Florida Orange Festival . . . the dates set are January 23 to 27 inclusive . . . and it'll be a plumb good show . . . we can count on that . . . Personal note to the Lyons person: From this distance looks as if January 25 probably will be the proper day . . . By the way, that hurricane not only removed the roof from George M. Spangler's house at Winter Haven, but filled the basement with water plumb up to the first floor . . . Many comments for a time upon Lake Lorenzo Wilson at Davenport . . . the one which came up in, and occupied, so good a part of the main highway alongside the golf course . . . California last month advertising "tree-ripened oranges" . . . which, of course, are the only kind to deserve advertising . . . Phil C. Peters of Winter Garden and C. Phil Peters of Tampa . . . two entirely different persons . . . Now a few are urging we write another History of Citrus Culture in Florida . . . that one written by the late Dr. J. H. Ross and this writer has been out of print now for ten years . . . and only a few copies available anywhere . . . possibly in part due to the fact it was bound in paper covers . . . Major Gen. Ebenezer Stevens of Revolutionary fame, so Mrs. Edith Wharton tells, was a famous citrus grower on Ling Island . . . at his home near what is now Astoria, N. Y., big orange trees grew in vast tubs . . . to be greenhoused during the winter . . . and placed outdoors during the summer . . . From Texas comes a letter . . . some groves there badly damaged by the recent storm, but the majority unhurt even though stripped of fruit . . . the trees putting out flushes of new growth in profusion . . . just like springtime . . . apparent prospects for a whale of a crop next year . . . barring, of course, the possibility of a severe winter cold spell . . . the tremendous downpour of hurricane rains helped wash the alkali out of soil and irrigation ditches . . . in that respect actually helpful to the growers . . . F. W. Butler of Winter Haven one of the most pleasing speakers in citrus circles since Dr. Ross . . . A. P. Connelly of Sanford one of the most cheerful personalities upon the peninsula . . . even though he has now been stone blind for three years . . . Which reminds that Will Kennedy of the editorial staff of the Washington (D.C.) Star has lost his eyesight though he remains on the job . . . Some Floridians will be sorry to learn that news . . . Will Kennedy long

has been a staunch friend of Florida at the national capital . . . The population of this Earth of ours has just about trebled since the American colonies broke loose from Great Britain . . . yet in every agricultural line the worry concerns over production . . . the Malthusian Theory seems to work backward . . . Remember, one Malthus it was who figured out that by about this time the increased population would be starving due to under production . . . Upon the Clapp groves near Orlando they have one lemon tree that is a freak . . . fruit as round and smooth as a pineapple orange . . . looks like a pineapple orange . . . but inside it is a true lemon of good flavor . . . Eldredge Clapp tells us he has no idea just how it came about . . . or where it came from . . . W. B. Willett, Maitland's old time grower, has a couple of big Villa Franca lemon trees in his grove which have withstood the cold spells of many years . . . and bear well . . . That September hurricane which missed Florida but slapped the upper portion of the Atlantic coast must have been a swing-dizzler . . . At Newport News, Virginia, they have definite tide and high water records for 326 years . . . and that hurricane put the water level two feet higher than any previously recorded . . . then Boston, up in the Land of the Bean and the Cod, got a treat in the form of 11.5 inches of rainfall . . . which was something said to be absolutely unprecedented there . . . A number of ginks and geezers rise to say kind words concerning Impressions last month . . . those written during the then prevailing hurricane . . . some apparently like them because written in this style . . . which is about as ancient as is newspaper making . . . and in reality a very easy, sort of slipshod, method of writing . . . but we appreciate the kind words just the same . . . Which somehow reminds us of Dr. Ross' favorite story . . . concerning the pitiful little guy who went into a restaurant . . . a big, rough waiter brutally demanded to know what he wanted . . . the little fellow bleated that he'd appreciate "two soft-boiled eggs and a few kind words" . . . in a few minutes the big waiter slapped the dishes down upon the table . . . "Here," he said, "are your eggs; and, as for the kind words, don't try to eat 'em" . . . With W. B. (Bill) Goding out on Richard Whitney's 36,000-acre property near Zellwood where, in addition to all the other things, there's a herd of 2,000 range cattle . . . the end of a cow-hunt, and something more than five

(Continued on page 18)

**17 YEARS OLD AND NOW SELL-  
ING FASTER THAN IT EVER  
SOLD BEFORE**



## FICO-60

Nor has the original formula been changed. Fico-60 simply has proven the best oil emulsion ever devised for Florida conditions. Today, after 17 years, it is without close competition in the regard of Florida's most successful citrus growers.

Emulsifies readily in any Florida water, hard or soft, and stays emulsified. Actually a cheap emulsion, because when you have bought it you need buy nothing else to go with it. Casein, whaleoil soap or other additions are wholly unnecessary. Try Fico-60 for the Fall Clean Up Spray in your grove, and thereafter be a regular user of Fico-60.

**Florida Insecticide Co., Apopka, Florida**

**WE AGAIN EMPHASIZE THAT**

## Florida Peat Humus

**AND ORDINARY MUCK  
DIFFER GREATLY**



Florida Peat Humus comes to you a standardized product from a very large plant possessing everything necessary to put it into the form most useful as humus. Not only does it come free of weed and grass seeds, but it is likewise free of harmful acids.

Ordinary muck, being lumpy, draws moisture into the lumps from the soil and in dry weather makes drouth conditions more acute. Many forms of ordinary muck also carry harmful acids. Do not confuse Florida Peat Humus, the finest humus product in the United States, with ordinary muck. Last month we shipped to New York State, Massachusetts, Connecticut and New Jersey. There must be a reason.

**Florida Humus Company, Zellwood, Florida**



# Coloring Borax-Treated Citrus Fruits

By J. R. WINSTON

Senior Horticulturist, Division of Fruit and Vegetable Crops and Disease, Bureau of Plant Industry

During the past two years the practice of treating citrus fruits with borax previous to coloring has advanced from experimental trials to commercial usage. This article, supplementing "The Coloring of Mature Citrus Fruits with Ethylene Gas" in *The Citrus Industry*, Vol. 13, Nos. 9, 10 and 11, (Sept., Oct., and Nov. 1932), is based on the investigations conducted by the United States Department of Agriculture on certain important modifications in coloring procedure which the changes in the borax treatment have made necessary.

The handling of a coloring room containing fruit that has been given the borax treatment presents a set of conditions not heretofore encountered. The principal difficulty is the maintenance of the proper humidity when the fruit and containers come in wet. This excess of moisture must be removed before the fruit can color at a normal rate. If, however, borax-treated fruit is handled in dry boxes the problem is much less difficult.

In a coloring room with still air or even with relatively slow air circulation, drying is very slow and more or less fruit splitting may result. Experimental evidence indicates that that six or eight hours is about the longest time that the fruit can be safely allowed to remain to maintain maximum air circulation with the continuous introduction of a liberal amount of dry fresh air and in addition to use a heating radiator to dry the fruit as promptly as necessary.

In the case of wet fruit handled in dry boxes no difficulty has been encountered in drying the fruit within a reasonable time where moderate air circulation is provided because there is no great excess of water to be removed by evaporation.

The use of a radiator as the source of heat in warming up wet fruit is recommended because of its efficiency in removing excess moisture. Experience has shown that the liberal use of steam in the atmosphere of a coloring room during the warming of borax-treated fruit (as has been the customary practice) may result in enough condensation to wash off much of the borax residue, particularly from fruit in the lower layers

of boxes. This is especially likely to occur if the fruit is rather cool when it is placed in the room and the humidity of the room air is high. Results of chemical analyses made in a number of such cases showed that the fruit in the lower boxes lost most of its protective borax deposit during the coloring operation. This resulted in such fruit decaying almost as rapidly as untreated fruit.

Experience has shown that it is desirable to maintain atmospheric humidity at about 92 percent after the first six or eight hours. A higher humidity than this stimulates decay, while a lower humidity is likely to result in excessive losses from wilting effects. Some operators have followed the practice of holding the humidity in the rooms at or near the saturation point during most or all of the coloring period. However, this practice is not advisable even with fruit not previously treated with borax because if it is kept wet during the greater part of the coloring period the rate of coloring is usually retarded and the rate of decay is greatly increased. When the fruit has been treated with borax, this excessive humidity is believed to do more harm than good for while it may increase the effectiveness of the borax somewhat, it is certain to retard coloring.

Some evidence has been obtained indicating that late ripening fruit such as the Valencia orange and late grapefruit, while in the process of re-greening, requires a stronger concentration of ethylene for rapid coloring than is the case with earlier maturing fruit treated at the time when it is naturally losing its green color. There is a general tendency among shippers to use far more gas than is necessary, even on fruit that is naturally difficult to color. The ill effects likely to follow the use of too much gas may in a measure be overcome by the use of an abundance of fresh air blown into the coloring rooms. Excessive gas concentrations do not measurably speed up the coloring process but they very decidedly stimulate respiration and decay.

The minimum effect concentration of ethylene to be uniformly maintained has not been determined. It is known, however, to be considerably lower than is now generally used.

From a limited number of tests which have been conducted in this connection, it appears that if fruit is held in an atmosphere containing coloring gas at effective concentrations for about 16 hours out of each 24, and the rooms are opened for thorough ventilation during the remaining period, the rate of coloring is not greatly retarded, but decay may be appreciably lessened. This is especially true in cases where more gas is used than is necessary. Where it is desired to put this plan into effect it can be done either by cutting off the gas supply for a period of 8 hours in each 24, or by turning off the gas and opening the doors for an hour or so after every 6- or 8-hour period. This intermittent ventilation may not prove to be necessary when the proper gas concentration has been determined, but variations in equipment and room construction and the natural tendency of coloring room attendants to be liberal with the use of gas suggests its desirability when operations are not closely controlled.

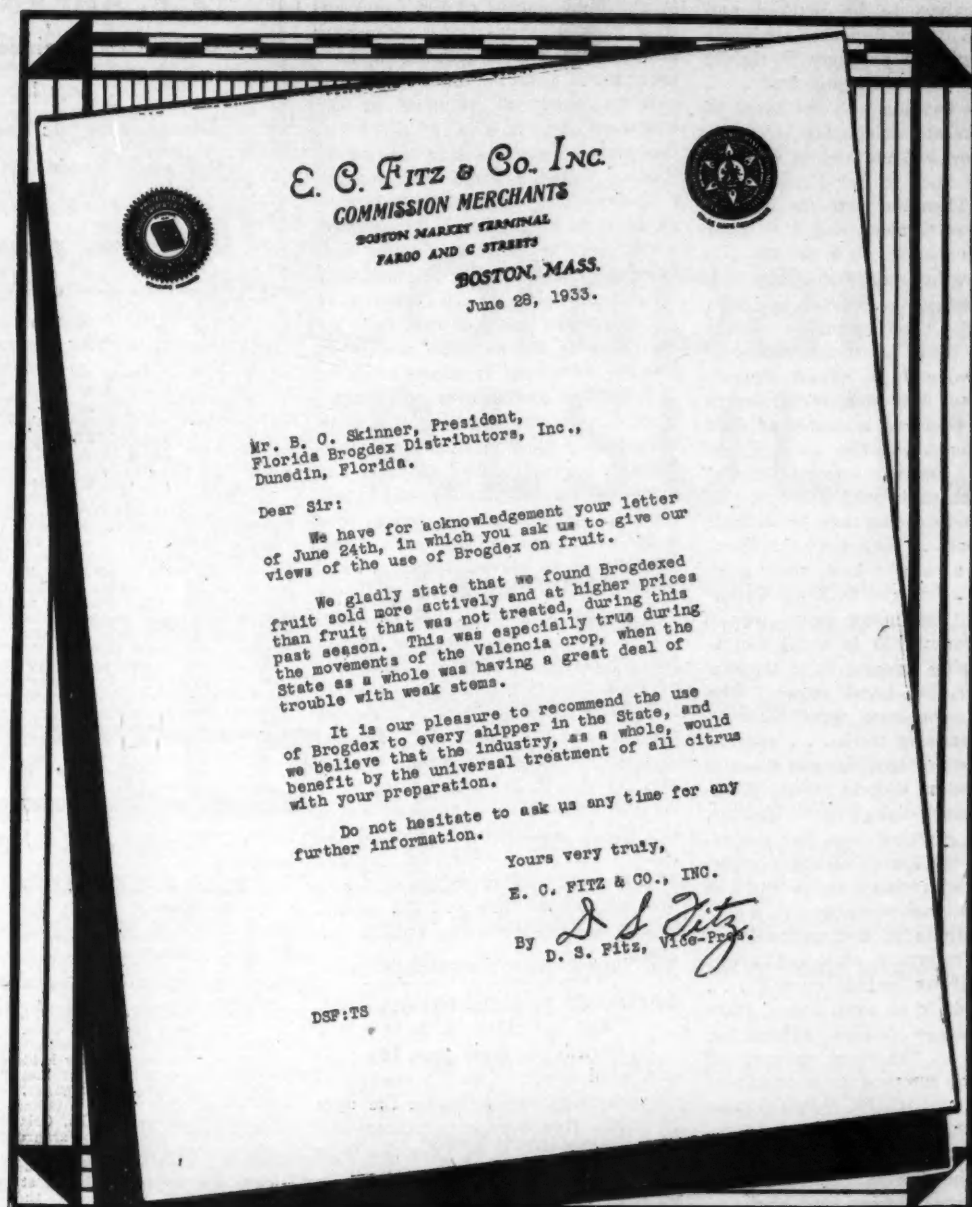
The presence of wet borax-treated fruit in a room adds further difficulties to attempts at maintaining optimum gas dilutions during the early part of the coloring period because under such conditions it is necessary to introduce into the room as much fresh dry air as possible in order to dry the fruit within reasonable time.

If ethylene is introduced in charges or "shots" these should be timed at intervals not exceeding 6 hours apart and the coloring room should be opened for an hour or so between charges, with the blowers still in operation, in order to thoroughly ventilate the room before each new charge is introduced. This extra aeration should be in addition to the continuous introduction of moderate amounts of fresh air throughout the coloring period. When ethylene is used in separate charges it is usually applied at the rate of one cubic foot to each four or five thousand cubic feet of room space. This is many times stronger than necessary and the amount of gas could well be lowered and still effectively color the fruit.

Kerosene fumes, which are still sometimes used as a source of ethyl-

(Continued on page 18)





### "Sells More Actively and at Higher Prices"—D. S. Fitz

This big Boston receiver speaks the common language of buyers everywhere. The more attractive appearance of Brogdexed fruit and its better keeping qualities make it much more desirable and naturally it "sells more actively and at higher prices", as Mr. Fitz says.

Such a statement from a firm so largely identified with the distribution of Florida fruit in the Boston trade territory should influence every grower and shipper to at least give serious consideration to the advantages of the Brogdexed treatment. These advantages are: a pack-out of more first grade fruit less refrigeration, sound delivery, better appearance, longer keeping qualities, a market preference and better prices. Any one of these advantages is worth more than the few cents a box that Brogdex costs. There is a Brogdex house near you.

**FLORIDA BROGDEX DISTRIBUTORS, INC.**

B. C. Skinner, President

Dunedin, Florida

## IMPRESSIONS

(Continued from page 14)

hundred calves to be marked and branded . . . they find that advisable even though the property is tightly fenced . . . low hanging dust . . . continuous bawling . . . the smell of wood smoke and of sizzling hides . . . we sat upon a fence and in memory went right back to our Florida boyhood . . . Then the next day in Sanford at a celebration called Cracker Day . . . speaking . . . a fish fry . . . cowpony races and tournament riding . . . and at the private luncheon at the Elks Club spectacle of the Honorable W. J. (Joe) Sears, and of the Honorable J. J. (Jess) Parrish eating fried fish with their fingers . . . Gosh, that was a couple of days to remember . . . The J. R. Crenshaws of Orlando again having trouble with their gold fish . . . this time pet ducks eating them from their outdoor pool . . . why don't the Crenshaws get a safe to keep their gold fish in? . . . Franklin O. King, Orlando grower, for many years was a foremost copywriter in a big Chicago advertising agency . . . so, too, John Paver, De Land grower, who after the boom-bust went back to active advertising work . . . and the guy who writes the Mennen's ads is another modest Volusia county grower . . . up near Ocala, Charlie Painter, sticking to growing now, but the originator of Old Dutch Cleanser trademark and advertising and a number of other national successes . . . a dozen lesser lights of the national advertising fraternity scattered about the state, if we include ourself . . . yeah, we put in an even dozen years in that Chicago national advertising treadmill . . . the chief memory of which can be summed up in one word . . . work . . . C. W. (Joe) Lyons estimates the citrus crop at 18,600,000 boxes . . . Jhillip E. Barney (PEB of the Tampa Tribune's Gulf Glean column) differs with him . . . Phil estimates 18,599,997 boxes . . . Meeting in an Orlando restaurant with A. B. Michael of Wabasso . . . the dean of lower East Coast growers looking well, but actually not in the best of health yet . . . the storm played havoc with him and others in the Fort Pierce district . . . L. D. Aulds giving signs of taking hold of his new traffic manager job with the Exchange pretty spryly . . . Lots of guessing about the proposed Citrus Code as this is written . . . our own guess is that there aint a-going to be no Code for this season . . . but the thing may be announced and promulgated before these lines get into print . . . we've noticed that all the

best guessers do their guessing after events have evented . . . An outbreak in the public press of the usual annual flock of suggestions concerning how to put citrus growing upon a truly sound basis . . . many such suggestions about as valuable as the next-best hand in a poker game . . . One writer tears his shirt concerning Florida shipping small size oranges . . . something which California never does, so he says . . . Yet in mid-August out in Nebraska Friend Wife found the boys playing marbles with California Valencias purchased there . . . Frank Holland now very busy researching in his new job where the Florida Fertilizer Institute seeks to find out the real reason why things grow . . . By the way the NRA dealt very kindly with fertilizer manufacturers . . . which fact farmers and growers over the country will appreciate . . . Citrus grower writes to a daily newspaper asking if a cover crop should be plowed under . . . and THE CITRUS INDUSTRY still only one dollar a year . . . C. C. Spencer of Haines City, once the world's largest patota handler . . . now one of Polk County's big citrus growers . . . Why the long spell of quiet on the part of C. G. Bouis of Ft. Meade? . . . W. W. Yothers, Orlando bugologist for the U. S. D. A. claims he is no horticulturist . . . but has one of the finest conditioned groves in the state . . . Frank O'Byrne of Lake Wales asks: What is an expert? . . . We can answer that . . . An expert, Frank, is a fellow from outside the State.

### COLORING BORAX-TREATED CITRUS FRUITS

(Continued from page 16)

ene, need never be strong enough in the coloring room to cause the eyes to smart. One burner per room produces sufficient gas to color the fruit and even that should be greatly diluted with fresh air forced in from the outside. Rooms receiving kerosene fumes should be handled in much the same manner as those in which the ethylene "trickle" method is used.

A little Italian rye grass sown on the lawn about the middle of October will provide a nice green lawn all winter.

Detailed Soil Analysis and Interpretations, Estimation of Plant Food Requirements and Soil Toxins.

\$2.50

SOIL LABORATORY  
Frostproof, Fla.

## J. F. AHERN

Consulting Engineer

Specializing In

Diesel, Electric and

Hydraulic Engineering

Phone 7-4755 2365 Post St.

Jacksonville, Florida

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF THE CITRUS INDUSTRY, PUBLISHED MONTHLY AT TAMPA, FLORIDA FOR OCTOBER 1933.

STATE OF FLORIDA,  
COUNTY OF POLK.

Before me, a notary public in and for the State and county aforesaid, personally appeared S. Lloyd Frisbie, who having been duly sworn according to law, deposes and says the he is the Business Manager of the The Citrus Industry and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher — Associated Publications Corp., Bartow, Fla.

Editor — S. L. Frisbie, Tampa, Fla.

Business Managers — S. Lloyd Frisbie, Bartow, Fla.

Business Manager — S. Lloyd Frisbie, Bartow, Fla.

2. That the owners are:  
Associated Publications Corporation, Tampa, Florida.

S. L. Frisbie, Tampa, Fla.

S. Lloyd Frisbie, Bartow, Fla.

B. L. Gable, Lutz, Fla.

F. L. Skelly, Orlando, Fla.

Frank Kay Anderson, Altamonte Springs, Fla.

B. W. Skinner, Dunedin, Fla.

F. P. Wall, Mansfield, Ohio.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:

Bankers Mortgage Co., Orlando, Fla.

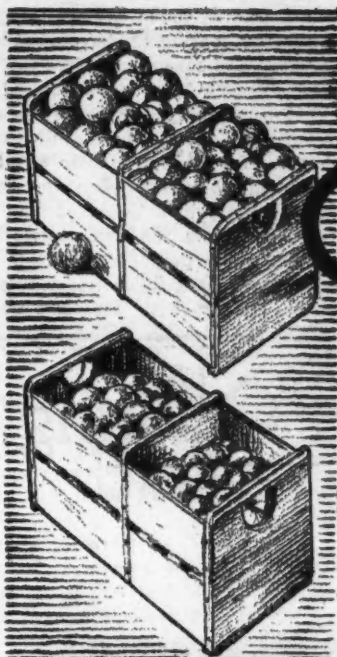
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company but also, in cases where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

S. LLOYD FRISBIE,  
Business Manager.

Sworn to and subscribed before me this 10th day of October, 1933.

(SEAL) CLYDE GIBSON,  
Notary Public.

(My commission expires 3-4-35)



# Compare RESULTS

## YIELD

### It's Our Story and we stick to it!

- 1) We have always given proper recognition to the value of organics as a source of nitrogen and as soil builders.
- 2) We have always advocated the use of guano as the best of all organics ... Nature's Finest Fertilizer.

For years many fertilizer men argued against the value of guano, now they all stress it. NACO has been telling the same story for 8 long years ... and we stick to it.

For outstanding results in truck crop production—it's the same story.

**M**ORE boxes of better fruit ... smooth textured, heavy juice content, larger and more uniform in size. This is what you'll find wherever the NACO program of fertilizing trees has been used.

Most NACO fertilized trees set more fruit during the Spring. Because of the liberal quantity of Genuine Humboldt Guano used in the formulas applied during the Fall and Summer, the trees have had a continuous source of plant food available during the growing season, they develop larger size fruit of better quality ... an increase in yield.

● Compare results! This is a challenge. Compare the condition of NACO groves with those fertilized under any other program. Compare the yield. Compare the size and quality of the crop. And finally, compare the cost. This is the year to make comparisons because generally favorable growing conditions have given all fertilizing programs a chance to prove their worth.



## NITRATE AGENCIES COMPANY

1424 - 1425 BARNETT BANK BUILDING

JACKSONVILLE - - FLORIDA





# **SOME PROBLEMS OF ADVERTISING FLORIDA CITRUS FRUITS**

(Continued from page 9)

men advocating a stem-winding advertising campaign for Florida citrus fruits were astonished to learn of this campaign of Dr. Ross to the medical men of the country.

Since that time the dentists have taken up citrus fruits very seriously, which fact we credit muchly to Dr. Clapp of New York, owner of Hia-wassee Groves near Orlando, himself editor of the Dental Digest, which publication for a number of years has

been espousing the cause of citrus fruits to the dentists of the country. It is something of a digression to mention Dr. Clapp's contribution here, but he is entitled to much credit from Florida growers.

When we picked up a newspaper or a magazine and give our admiration to some exceptionally well executed advertisement, few pause to consider what has gone into its making. Let's for a moment consider some of the things affecting such an advertisement, if it happens to be a part of a well conceived campaign by some successful advertiser.

Firstly there must be a definite objective, sought to be reached by the campaign of which the advertisement is a part. A lot of dealers, salesmen, perhaps consumers, have been questioned and consulted before the planning began. That takes time.

The planning includes laying out a series of advertisements, of varying sizes, to run continuously or at calculated intervals, each dovetailing into that which preceded and that which follows, the whole series being designed to put over a certain message to consumers and to obtain certain prestige with wholesale and re-

## **Borax Treatment Before Coloring**

**Will Control Stem End Rot And Blue Mold Decay**



**Shortens the Coloring Time**

**Increases Plant Capacity**

Early fruit that remains in the coloring room for any length of time is subject to more rot and decay than takes place later on when the coloring time is shortened or entirely eliminated. Particularly is this true of stem end rot.

After a number of years of experimental and research work by specialists in the U. S. Department of Agriculture it has been definitely established that if the fruit is put through a borax bath before coloring stem end rot and blue mold decay are almost completely controlled, if combined with careful coloring.

The picture above shows equipment designed for dipping fruit for a short period in a hot solution of borax just before going into the coloring room. The washer is not intended to do a good job of cleaning but enough to give the borax a chance to get into all the pores of the fruit and at the same time clean sufficiently that the graders can grade the fruit into "green", "partly green" and "ripe".

By grading properly the coloring time can be greatly reduced which will increase plant capacity and deliver the fruit to the market in better condition.

Our representative will be glad to discuss the matter with you at your convenience

**FLORIDA CITRUS MACHINERY COMPANY**

Division Food Machinery Corporation

B. C. Skinner, President

Dunedin, Florida

tail dealers. That takes time.

Publications must be chosen carefully, each publication must carry the whole or its ascertained part of this series of advertisements, geographical distribution of the publications must be made to balance with the geographical distribution of the product; what part of this publication's circulation is waste, and what part of that one's is overlapping upon others? No advertiser, not even Wrigley, can use all, or any very great part of all, the publications printed; there must be weighing and selection of competing papers and magazines. Every good advertising man learns to say "No" so readily he almost says it automatically when approached by a space salesman. A lot of data on circulations needs to be consulted and digested. All that takes time.

Then the advertisements must be written. That takes time, a good bit of time.

Then they must be illustrated. Time must be allowed to "sell" certain ideas to artists and photographers. They require time to execute their work. Then time is needed to make the necessary cuts—very often three weeks is not too much time to allow to tinker with a set of color-plates after the engraver has made the first set and submitted proofs.

Then the advertisements must be put up in type and the cuts for the illustrations inserted in their proper places. Advertising typographers are artists in their way, they must be unhurried; and very often after proofs of the complete ads are drawn begins the real battle of whipping them into shape to conform with the preconceived plan. That takes time.

Then either plates or matrices are made from the complete advertisements, to be supplied to the various publications, so that each advertisement presents identically the same appearance wherever it appears. That takes time.

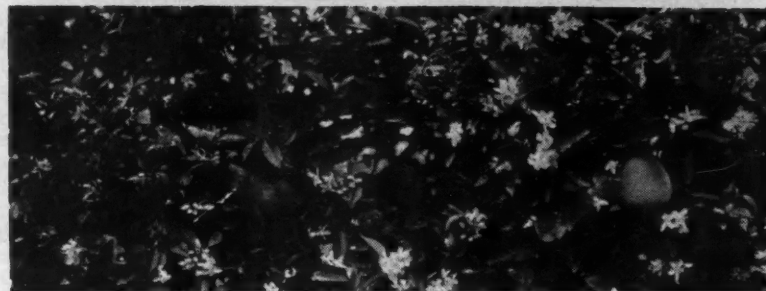
Then orders must be written, checked and rechecked, and forwarded to the selected publications. That requires time.

Then the publications require time to start the ads. From a minimum of three weeks with a few of the weekly magazines to two months in the case of some of the monthly magazines, must elapse between the arrival of the order and the plates in the publishers' hand before the first advertisement will be published. That's more time.

Even though some of these time consuming operations may be executed simultaneously, you'll find the advertising managers of the large suc-

## H. C. Babcock tells: *His Experience*

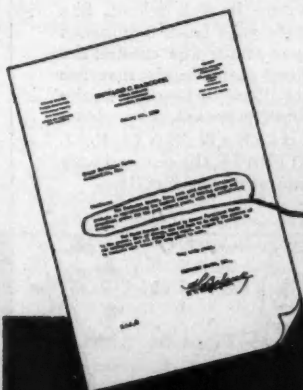
**"Continuous Use of Your Quality Fertilizer  
Has Brought Highly Satisfactory Results"**



GROWERS throughout the citrus section of Florida are obtaining highly satisfactory results year after year by using Armour's BIG CROP Fertilizers. Note the letter from Mr. H. C. Babcock, Treasurer, Pentucket Groves, Inc., Orlando. His expression is typical of an evergrowing number of users of Armour's BIG CROP Fertilizers. Experience, wisdom and economy all urge their use, and with the fall application close at hand there

will be real satisfaction in using them for this important season.

Armour's BIG CROP Fertilizers will give your trees the plant food they need now to bring your present crop to a full, sweet richness. The application will strengthen your trees to withstand the stress of winter and will supply the energy necessary to give your trees a good start in the spring. Decide now to give the trees a better chance to prove their value. There is a standard, demonstrated brand to suit your particular requirements. Our field representative will gladly call and help you with your fertilizing problems. Write us today.



The Pentucket Groves, Inc., have used Armour's fertilizer products on approximately two-hundred acres of bearing orange and grapefruit groves for the past several years, with very satisfactory results.

*Armour's*  
**BIG CROP  
FERTILIZERS**

CITRUS  
GROWING IN  
FLORIDA

If you have not already received a copy of our new "Citrus Booklet" write for a copy today.

**ARMOUR FERTILIZER WORKS**  
JACKSONVILLE - FLORIDA

cessful advertising concerns constantly working from six months to twelve months ahead of the appearance of their advertisements in print.

That is something which more recently in Florida we seem to have lost sight of entirely. We want to incubate an advertising urge, subscribe a fund, and get something into print to make sure that fund is expended—all within a period so short as to be wholly inadequate for intelligent advertising. It can be done, for it has been done; but what have you when it is done?

That speed mania, which is mostly the result of lack of knowledge of how successful advertising is in reality done, perhaps was responsible for the beautiful Florida grapefruit advertisement in colors in a national magazine a season or so ago, which advocated grapefruit as diet for women to take off fat and make them thin. Now Dr. Ross never would have countenanced that advertisement, because it wasn't true. Grapefruit, like any other fruit, by stimulating elimination acts only to make one a little more nearly normal. If thin it may aid you to gain weight, if fat it may aid you to lose weight. But grapefruit of itself possesses no properties which will take off weight in themselves. Besides, whoever got that inspiration evidently didn't know, and had no time to check the data, that more than 70 per cent of the women of this country are underweight rather than overweight. Think of that, roughly seventy per cent of the women of the country seeking to put on weight rather than to lose weight; and think of the effect upon grapefruit sales of a considerable number of them reading this advertisement which put grapefruit falsely into the anti-fat class.

Perhaps that same speed mania was responsible for the appearance of some large and very expensive Florida citrus advertisements not long ago in some publications whose circulation is very largely waste as far as Florida citrus fruits are concerned—waste because that circulation is heavy in territories where Florida sells no fruit, and cannot sell fruit, because of freight rates and market limitations.

There is a lot of hocus pocus about advertising, most of which is unnecessary and uncalled for. Every citrus grower ought to understand the fundamentals of advertising, for advertising is the fertilizer which applied to the tree of business produces fruit in the form of sales. That is just about it.

Therefore long let-ups in advertising are due to bring let-downs in the production of sales. Advertising, like fertilizing, can be as foolishly expensive as you care to make it, or it can be common-sense advertising and yield bigger returns in proportion to the expenditure. If you are a beginner, or have gotten off upon the wrong foot, what better way of solving your fertilizing problem than by consulting and following closely the fertilizer practices of some truly successful grower near you? We can use something of that same sort of common-sense in Florida citrus fruit advertising.

And practically all growers having discovered that the best method of obtaining the value from their fertilizer is by sprinkling it upon the ground adjacent to the trees, why waste time and fertilizer by applying it to the leaves and trunks of the

trees and the tops of the fence posts? Why waste advertising money by insisting upon trying means and methods which successful advertisers do not employ, which perhaps have long ago been tried and discarded.

This long period of depression, which just now seemingly is coming toward a long looked for end, has been helpful rather than hurtful to the business of advertising, because it has caused the frivolous and foolish to be thrown aside and has served to emphasize the real value of intelligent advertising intelligently administered.

Right through this period of depression the outstanding industrial success of the country, amazing financiers and manufacturers alike, has been Proctor & Gamble. Yes, the folks who make Ivory Soap etc., etc. A business of big volume and very

(Continued on page 26)

## Fascinating Facts of NATURE — NO. 1



In the shadow of the Andes Mountains, Nature stored the world's supply of Chilean Natural Nitrate.

Nature is your friend. She made your land. She makes your seeds. She created the three plant foods that are the sinew of farming in the South—potash, phosphate, CHILEAN NATURAL NITRATE, the one and only natural nitrate fertilizer.



CHILEAN NITRATE WAS FIRST USED BY SOUTHERN FARMERS WHEN ANDREW JACKSON (OLD HICKORY) WAS PRESIDENT (1829-1837)



CHILEAN NITRATE IS ONE OF FEW THINGS IN THE WORLD THAT EXCELS BECAUSE OF ITS IMPURITIES. REASON — "IMPURITIES" SUCH AS IODINE, POTASSIUM, SODIUM, CALCIUM, BORON, MAGNESIUM ARE NATURAL PLANT FOODS IN THEMSELVES

# Chilean NATURAL NITRATE

The only nitrogen that comes from the ground.





# League Heads Claim Body Is Growing Rapidly

By P. L. WAYCOUP

At a growers meeting held in Orlando on the evening of October 2nd, President H. G. Miller, of the Florida Citrus Growers League called attention to the fact that the new organization then was just one month old, the official organization meeting having been held in Winter Haven on September 1 at which time the charter and by-laws were adopted.

According to the officials of the League it has been a busy month for them; and they state they believe the record of accomplishment is an unusual one.

The enlargement of the proposed Committee of Nine to be a Committee of Twelve, three growers being added by Washington to the proposed Control Committee, originally projected to be composed of nine shippers, to administer in Florida the proposed Citrus Code, or shipping agreement, of the Agricultural Adjustment Administration, is one of the tangible results claimed for the League's activities even though the League's spokesmen say frankly this was done following earlier meetings and a few days prior to the formal organization of that body.

Further it is claimed that the Code, as, and if, issued from Washington will reflect substantial results of the presentation at the Washington hearing upon September 7 of evidence submitted for Florida citrus growers by the League's committee consisting of George M. Spangler and L. C. Sinclair of Winter Haven, H. G. Miller of Orlando, and A. R. Sandlin, of Leesburg.

In conformity with the charter and by-laws, the executive committee, it is stated, during the past month has worked out a plan of departmentalization which when complete will give the organization ten functioning departments as follows:

1. Organization.
2. Legal.
3. Cultural Practices.
4. By-products.
5. Packing House Relations.
6. Public Relations.
7. Governmental Relations, State and Federal.
8. Market Enlargement.
9. Banking and Grower-finance.
10. Taxation and Legislation.

Questioned concerning the absence from this list of any department concerned with transportation or freight rates, it was stated this was felt to be unnecessary. That the already

existing Growers and Shippers League of Florida, the joint traffic and freight-rate organization of growers and shippers of citrus and vegetables, was considered by the executive committee of the new "simon-pure" growers body to be doing all that is at this time practical in that direction. It was pointed out that the already existent traffic bureau now has been in active service over a period of ten years; and that the best posted growers feel it deserves the whole-hearted support of all in the state concerned with the citrus growing industry. Also, it is said, the financing of the existent traffic organization is through funds furnished by the growers. So, instead of doing anything which in any way might conflict with the authority or effectiveness of the Growers and Shippers League, the executive committee and officers of the new Florida Citrus Growers League will lend the traffic organization the heartiest possible support, endeavoring to give to J. Curtis Robinson the traffic expert in charge the fullest cooperation at all times.

At the same time it was pointed out that the new department of Cultural Practices to be set up will be conducted in closest cooperation with the long established Florida Horticultural Society, the main support of which for more than forty years has come from the citrus growers upon the peninsula.

Action along other lines, it is stated will be in conformity with the early announced policy of the League not to interfere with nor to attempt to displace any previously existing organization nor joint undertaking, except to provide effective cooperation for those deserving of it when it is indicated such cooperation will result in benefit to the industry as a whole.

Similarly those in charge of the new League's activities ask that reiteration be made of its intent to keep wholly out any field of action as a marketing agency, as manufacturers or distributors, or otherwise invading the field of any existing commercial company or organization. There is plenty of work to be done, they say, on behalf of the growers as a whole where collective action can be beneficial without undertaking anything which may disrupt already existent businesses.

The ten departments now author-

ized will, it is said, be organized as rapidly as is consistent with good management. It is the intent to place each department under the charge of a vice-president who must be named by the president and confirmed by the the board of directors, each such vice president and department head to be chosen from the members of the League for his experience and specialized knowledge of the particular line of work to be placed under his direction. Until such time as vice presidents thus are appointed to head respective departments those departments remaining without active heads will be administered directly by the executive committee.

Up to October 2 announcement had been made of the selection of two of these vice-presidents: Marshall Edwards, Bartow, of the law firm of Huffaker & Edwards, was chosen vice-president and general counsel, and has assumed charge of the legal phases of the body's activities. F. W. Butler, Winter Haven grower, and a former law partner of Carey A. Hardee at Live Oak, was elected vice president in charge of organization, and at once assumed his duties actively.

Under Mr. Butler's leadership a series of meetings over the various citrus areas were at once started, and have since been proceeding rapidly. Growers meetings have been held and local organizations perfected in Co-coa, Titusville, Eustis, Leesburg, Weirsdale, Longwood, Geneva, Orlando, Winter Haven, Clermont, Mount Dora, Apopka, McIntosh and other places, and will be continued, it is said, until the entire eighteen citrus producing counties have been covered fully at which time it is hoped the League's membership will comprise a most representative section of the growers of the state.

At Orlando it was stated that important announcements shortly may be expected relating to the departments of by-products and of banking and grower-finance. It is said that in the absence of selection of the proper man to head the proposed activities in connection with banking and grower-finance a special sub-committee of the executive committee and officers are hard at work upon those problems and that already there are indications of very promising results, and at a much earlier date than a short time ago was anti-

(Continued on page 26)

### PRODUCTION AND PRICE TRENDS IN FLORIDA CITRUS (Continued from page 5)

that season than they have been since, it appears. They were estimated at \$1.05 a box for grapefruit, \$1.10 for oranges and \$1.50 for tangerines, weighted average, \$1.10. Combined, the figures of three years ago stood: grapefruit, \$1.41; oranges, \$1.58; tangerines, \$2.04; weighted average, \$1.53.

#### Where Fruit Was Used

"Commercial movement," once regarded as made up wholly of shipments by rail and boat, now must be interpreted as including also the citrus conveyed out of the state on motor trucks. In the past three seasons the quantities entering interstate commerce were as follows: 1932-33, by rail and boat, 20,176,750 packed boxes, by truck, 3,010,180 field boxes, total, 23,186,930 boxes; 1931-32, rail and boat, 18,914,165, trucks, 2,255,520, total, 21,439,685; 1930-31, rail and boat, 27,229,945, truck, 2,640,000, total, 29,869,945. Transportation of the commercial output was 87 percent by rail and boat in 1932-33, 88 percent in 1931-32 and 91 percent in 1930-31.

Gains of a substantial character

were recorded last season in the movement by boat. From the major ports, the dispatches of the steamship lines accounted for the equivalent of 11,045 carloads of fruit, having no previous rail haul, considerably more than double as many as in 1931-32, when 4,239 cars were out by this means. For 1930-31, the exclusive boat shipments were only 1,696 cars. The railroads had 44,456 cars in 1932-33, against 44,996 for 1931-32 and 72,949 during 1930-31. Last year they actually lost 540 cars, as compared with the previous season,—while the water lines picked up 6,806 additional. (Portions of the rail tonnage were hauled only in Florida, having been diverted to boats at port terminals. In 1932-33 the steamships picked up over 40 percent as much citrus cargo from this source as they got direct or by trucks.)

Canneries utilized nearly the same quantity of Florida citrus last season that they did two years previously, the number of field boxes disposed of in this channel standing 2,800,000 for 1932-33 against 2,954,056 in 1930-31. Operations were greatly reduced in canning during 1931-32, and only 966,533 boxes were taken that season. Consumption of grapefruit, or-

anges and tangerines within the state, other than at cannery plants, is indicated as on an increasing scale. Of the 1932-33 crop, the Marketing Bureau estimates show, 2,422,700 field boxes of fruit found its outlet at home while in the season next preceding but 2,040,000 had been absorbed and 2,180,970 in 1930-31, notwithstanding the over-production in the latter period.

#### Whence Came the Output

Records of the State Marketing Bureau are kept to disclose the point of origin only when the citrus fruits are rolled by rail, in straight carloads. They account in this respect, therefore, for but 44,125 of the approximately 78,021 cars believed to have been marketed in the past season. Sources of the remaining output in all probability were relatively about the same, proportionately.

First rank in shipments again was held by Polk county, which furnished 15,243 carloads of the 44,125, or more than one-third. Orange retained second place with 7,213 and Lake remained in third, having 3,416. Pinellas once more stood fourth, on a 1,888 car tonnage. Seminole pushed her closely, however, when she turned out 1,886 cars, stepping up into fifth position from sixth last season and

## COLOR or BLANCH

MATURED FRUIT AND  
VEGETABLES WITH

## ETHYLENE



Every grower and shipper  
should have this FREE book which shows how  
Ethylene

- |                                       |                    |
|---------------------------------------|--------------------|
| 1. INCREASES<br>PROFITS               | 2. REDUCES<br>LOSS |
| 3. SAVES<br>TIME                      | 4. SAVES<br>MONEY  |
| 5. IS NEITHER INJURIOUS NOR DANGEROUS |                    |
| 6. IS EASY TO USE                     |                    |

Buy from the largest supplier of  
Ethylene to the citrus industry

## CARBIDE AND CARBON CHEMICALS CORPORATION

30 East 42nd St., New York City

1310 Santee St., Los Angeles, Calif.

114 Sansome St., San Francisco, Calif.

Warehouses in Los Angeles, Tampa, Jacksonville,  
and other principal cities

Unit of Union Carbide **UCC** and Carbon Corporation

## MORE THAN 100 GROWERS IN ONE FLORIDA COUNTY ALONE USE AMMO-PHOS HIGH-ANALYSIS FERTILIZERS ON CITRUS GROVES



WHY WAIT LONGER...  
to join this growing army of  
satisfied users?

## AMMO-PHOS\*

is available either as a material  
supplying 11 per cent nitrogen (13  
per cent ammonia) and 48 per cent  
phosphoric acid; or as Ammo-Phos  
High-Analysis Complete Fertiliz-  
ers supplying all necessary fertil-  
izing elements in the exact pro-  
portions required by the citrus crop.

\*Reg. U. S. Pat. Off.

For full details, including  
name of nearest dealer, write

## AMERICAN CYANAMID COMPANY

Manufacturers of Aero Cyanamid and Ammo-Phos

1021 Edgewater Drive Orlando, Florida

AMMO-PHOS High-Analysis Fertilizers  
Contain More Than 30% Plant Food



twelfth the year before.

Sixth was found Brevard, shipping 1,875 straight cars, also forcing herself forward, since in 1931-32 she ranked tenth and in 1930-31, eighth. Hillsborough in seventh place had 1,852 cars, slipping back from fifth where she had been for the past two seasons. Volusia, with 1,424 cars, held eighth place, advanced into last year from tenth. Highlands showed up with only 1,344 cars, ranking ninth and dropping from seventh a year ago and sixth the season previous. DeSoto's 1,166 cars advanced her to tenth from eleventh in 31-32 but the preceding year she had stood seventh. St. Lucie, offering 1,068 cars, stepped into eleventh, from her former position of thirteenth held for two shipping periods.

Her 956 cars ranked Hardee twelfth, better than her fourteenth last year but down from the eleventh she had in 1930-31. Marion, 923 and thirteenth, had been twelfth and fourteenth. Short crop in Manatee gave her 916 cars and fourteenth place, while for two years she had been in ninth. Indian River's 695 cars put her again fifteenth though last season she dropped to sixteenth. Lee lapsed into sixteenth, with 401 cars, from a previous fifteenth but back of that had been down to seventeenth. Straight carloads out of several other counties, and their ranks, 1932-33, were: Pasco, 390, seventeenth; Putnam, 337, eighteenth; Hernando, 272, nineteenth; Osceola, 255, twentieth; Dade, 143, twenty-first; Sumter, 118, twenty-second. Less than 100 cars, down to a single one from each of two, went forward from ten additional counties, giving rail shipments from thirty-two of the states sixty-seven.

## Insecticide Manufacturers Organize

The Florida Insecticide Manufacturers and Distributors Association is the title under which the producers and distributors of insecticides in Florida have formed a permanent organization, the meeting for which was held in Orlando on September 19.

Primarily formed to enable the various factors to handle their N. R. A. problems jointly rather than individually, it is anticipated that in addition to enabling this, the association also will develop a much wider field of activity, with benefit to the growers as well as to those interested in the sale of insecticides.

The first such contemplated action will be the development of uniform

or standard recommendations for the control of the various insect pests normally encountered in connection with citrus fruit and truck crops in Florida. It is hoped also to develop research activities that ultimately may be of considerable benefit to Florida growers.

Officers of the new association named at the organization meeting are C. M. Slaughter, Orlando, president; W. B. Goding, Apopka, vice-president; J. K. Sparkman, Tampa, vice-president; and R. F. H. Dade, Jacksonville, secretary and treasurer.

In writing advertisers we will appreciate it if you will please mention THE CITRUS INDUSTRY.

## EXTENSION AGENTS TO CONFER WITH LEADERS ABOUT WORK FOR YEAR

Gainesville, Fla.,—In the midst of their battle for farm adjustments and of helping farmers obtain loans, Florida county and home demonstration extension agents will assemble here during the week of November 13 for a conference with state and federal agricultural leaders.

Further plans of the Secretary of Agriculture for adjusting farm production, farm loans for Florida, and plans of work for the coming year will take up most of the regular morning and afternoon sessions during the week.

A ROOM AND A BATH  
A DOLLAR AND A HALF

—AT—

"Jacksonville's Leading Hotel"



## THE SEMINOLE

CHARLIE GRINER, MANAGER

JACKSONVILLE, FLORIDA

A human, home-like institution where you will find your individual comfort and entertainment a matter of great importance. A steel fireproof building located in the heart of the city.

Every Room with Combination Tub and Shower Bath, Radio, Electric Ceiling Fan, Slat Door for Summer Ventilation, Comfortable Beds with Mattresses of Inner Spring Construction and Individual Reading Lamps.

### RATES

22 Rooms with Private Bath	\$1.50—Single
56 Rooms with Private Bath	2.00—Single
40 Rooms with Private Bath	2.50—Single
40 Rooms with Private Bath	3.00—Single
24 Rooms with Private Bath	3.50—Single
10 Sample Rooms with Private Bath	4.00—Single

SLIGHT INCREASE FOR DOUBLE OCCUPANCY



# SOME PROBLEMS OF ADVERTISING FLORIDA CITRUS FRUITS

(Continued from page 22)

small profits. And right on along, month after month, Proctor & Gamble have been spending their regular advertising appropriation of approximately \$400,000 monthly, or nearly \$5,000,000 a year. Nor have they deviated from their well developed scheme and plan, nor yet allowed their advertising copy to become hysterical or staccato. Just the same, quiet, effective, convincing and sincere approach to tell the World and his wife of the merit of their products.

Yes, advertising is all right. The world's worst depression has proven that conclusively. It is ready, too, and waiting to serve those who will command it intelligently and in a common-sense manner.

And we of Florida who may desire to use advertising to the end that the public may the better know and appreciate the fruits we grow, may profit, perhaps considerably, if we utilize the pause we have made in advertising and trying to extend and intensify our markets to study our situation, and to take stock of ourselves in our attitude toward, and our use of, advertising.

## LEAGUE HEADS CLAIM BODY IS GROWING RAPIDLY

(Continued from page 23)

icipated. Contacts with two very large out-of-state financial groups were said to be more than encouraging for certain projected grower-financing upon entirely different lines from any heretofore available in Florida.

"A certain amount of time," says the most recent statement to emanate from the executive committee of the League, "is essential to set up in its entirety the organization proposed to function ably in so many directions. If this League is to become a permanent and lasting institution, of, for and by the citrus growers of Florida, it is necessary to proceed no faster than is in accordance with good business judgment. The instruction to this board of directors, and to this committee, from all the growers meetings thus far held, are to make the Florida Citrus Growers League just such a permanent and functioning institution, and we are working toward that end as rapidly as is consistent. Results to date, even with the organization in its very infancy, abundantly justify this effort of the growers to band themselves

together for collective action; and approval of the effort from among those growers not at first joining in it is self-evident from the rapid and increasing growth of the membership.

## LEE A. STRONG NAMED CHIEF OF BUREAU OF ENTOMOLOGY

Lee A. Strong, who for the past four years has been chief of the Bureau of Plant Quarantine, became chief of the Bureau of Entomology on is a research institution, charged with investigations and demonstrations for the promotion of economic entomology; it seeks the best means of destroying injurious insects and the development of beneficial ones. The Bureau of Plant Quarantine is responsible for the enforcement of quarantines promulgated to prevent the entry or dissemination of dangerous plant pests new to or not widely distributed within the United States; it is also responsible for carrying on, in cooperation with the States, necessary work to prevent the spread or to eradicate pests that may have gained local foothold.

## MARLATT RETIRES AS ENTOMOLOGY CHIEF IN U. S. D. A

Dr. Charles L. Marlatt, who reached his seventieth birthday on September 26, retired September 30, 1933, as Chief of the Bureau of Entomology, U. S. Department of Agriculture.

## CLASSIFIED

### Advertisements

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

FANCY ABAKKA pineapple plants. R. A. Saeger. Ankon, Florida.

PUREBRED PULLETS FOR SALE—White Leghorns and Anconas ready to ship. Barred Rocks and R. I. Reds shortly. Several hundred yearling White Leghorn hens now laying 70%. Write or wire for prices. C. A. Norman, Dr. 1440, Knoxville, Tenn.

FOR SALE—Selected budwood and trees of Perrine lemon, Tahiti lime, new varieties tangelos and other citrus. Ward's Nursery, Avon Park, Fla.

LAREDO SOY BEANS, considered free from nematode, excellent for hay and soil improvement. Write the Baldwin County Seed Growers Association, Loxley, Alabama, for prices.

SEEDS—ROUGH LEMON, SOUR ORANGE, CLEOPATRA. Pure, fresh, good germination. Also seedlings lineout size. De Soto Nurseries, DeSoto City, Fla.

DETAILED SOIL Analysis, Interpretations. \$2.50. Soil Laboratory, Frostproof, Florida.

RAISE PIGEONS—Profit and pleasure. Illustrated descriptive catalogue postage six cents. Vrana Farms Box 514a, Clayton, Missouri.

CROTALARIA SPECTABILIS—Seed for sale. New crop, well cured, bright and clean. Price 25c per pound in 100 pound lots and over, 30c per pound in less quantities. f. o. b. Hastings, Bunnell, Lowell and San Antonio, Florida. F. M. LEONARD & COMPANY, Hastings, Florida.

WANTED—To hear from owner having good farm for sale. Cash price, particulars, John Black, Chippewa Falls, Wisconsin.

BUDDED trees new Florida commercial lemon, proven, thin skinned, juicy, scab immune. Also rough lemon, sour orange and Cleopatra seed and liningout seedlings. DeSoto Nurseries, DeSoto City, Fla.

SEND no money. C. O. D. Cabbage, Onion and Collard plants. All varieties 500—60c; 1,000—95c; 5,000 and over 75c per 1,000. Standard Plant Co., Tifton, Ga.

C. O. D. Frostproof cabbage, onion and collard plants. All varieties 500—60c; 1,000—95c. Farmers Plant Co., Tifton, Ga.

DUSTER — Niagara, Air-Cooled engine Steel truck-mounted. Nearly new. Half price. Samuel Kidder, Monticello, Fla.

HIGH BLOOD PRESSURE easily, inexpensively overcome, without drugs. Send address. Dr. J. B. Stokes, Mohawk, Fla.

SCENIC HIGHWAY NURSERIES has a large stock of early and late grapefruit and oranges. One, two and three year buds. This nursery has been operated since 1883 by G. H. Gibbons, Waverly, Fla.

CABBAGE, Onion and Collard plants. All varieties now ready. Postpaid 500 for \$1.00; 1000 \$1.50. Express \$1.00 per 1,000; 5,000 and over 75c per 1,000. Satisfaction guaranteed. F. D. Fulwood, Tifton, Ga.

NEW COMMERCIAL lemon for Florida, the Perrine; proven. All residents need yard trees, keeping Florida money at home. Booking orders for budded stock for Winter delivery. DeSoto Nurseries, DeSoto City, Fla.

WANTED—To hear from owner of land for sale. O. Hawley, Baldwin, Wis.

SATSUMA BUDWOOD from Bearing Trees. Hills Fruit Farm, Panama City, Fla.

SEED—Rough lemon, sour orange, cleopatra. New crop from type true parent trees. Also thrifty seedlings. DeSoto Nurseries, De Soto City, Florida.

## Shipping Departments

For Sale—One used "Marsh" Stencil Cutting Machine; cuts half-inch letters. Also have ink pot, brush and liberal supply of blank stencils. Machine guaranteed in best of condition and to operate in every way comparable with a new machine. Price, complete with accessories as listed, f.o.b. Tampa, \$50.

THE DURO CO.  
1219 Florida Ave., Tampa, Fla.